

Whether C2C based on Social Network Ruins Friendship?

– A Research based on WeChat Dataset

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Introduction

WeChat is the most popular social media among Chinese people. It merges the functions of Facebook, Twitter, Venmo etc. By 2016, there are more than 762 million active accounts on WeChat. And according to a recent report of Penguin Intelligence, about 61.4% users check the moments first when they open the App.

With the growth of users, a considerable amount of WeChat users begin their own small business (named Micronets) through moments. Some of them registered while more of them work part-time and do their small business through moments. Those who run a C2C business through moments post and sell their products to the connections, which are largely made up by their friends, schoolmates, colleagues, and family members, that is, their social network.

Those small businesses are profitable, low or non-cost and easy to start but are not without it's problem. Because of the privacy of moments - only visible to the connections instead of public, users record and share their lives, moods, and opinions with their friends and get the most updated information of their friends through it. Thus, the appearing of ads of Micronets incurs the aversion of their connections. According to the data report of Tencent Big Data, more than 20% users will choose not to see those Micronets' moments through "Hide His/Her Moments" function of WeChat and even some of the users will block or delete those Micronets. This may jeopardize the initial social network of those Micronets.

Research Prompt

My research question is "Whether C2C based social network ruins the friendship?" Are those who hide or block or delete those Micronets really friends to each other? They may only be the primary school classmates, people knew on airplane etc. They just happen to know each other and have no actual interaction with each other.

I plan to use observational data from Tencent Big Data Database to analyze the change of

social network pattern of the Micronets. Those Micronets are easy to be distinguished from the population for they have quickpay records on WeChat, which is separate from WeChat Red Pack. And also, it's easy to distinguish advertising moments and normal moments for advertising moments always include 9 photos one of which is QR code.

I'd like to check the engagement rate of their normal moments, which has nothing to do with their business, before and after they start running business. The engagement rate including numbers of comments, likes and the click through rate of their photos, videos and links they share (You have to click the photos and videos to load it). To eliminate the time effect and create comparison group, I also plane to track the engagement rate of moments of those who are not Micronets while opened their WeChat accounts at similar time as those Micronets.

Then I plan to use RD or RID method to examine the influence of putting ads into moments on friendship.

Advantages and Disadvantages of my research

There are three main advantages. **First**, the dataset is big. There are many accounts, lots of information per user and many observations over time. Thus we have enough data to analysis those who are doing small business through moments and can detect small change of engagement rate of their moments. Thus can help us to make causal estimates and eliminate the bias of noise. **Second**, the dataset is always-on. It tracks those who are observed through time period and provide real-time information of the changes of engagement rate. Thus, by this dataset, I can continuously observe the Micronets including those who newly started their business. **Third**, this database is non-reactive. Although people notice that their activities through WeChat are being recorded, they are too used to it to affect their behavior.

However, there are also drawbacks and barriers. **First**, the database is incomplete, it doesn't officially record the real name and age of the users. Although we can figure it out through the credit card users added to their account, but not all users add their credit card. It may create barriers when we want to divide people into different groups to analyze their reactions towards ads in their moments. **Second**, which is the most significant, those

data are algorithmically confounded in different ways. For example, those Micronets experience significant reduce of engagement rate of their normal moments may rise from they post too much moments in total. This reduces people's interests towards their normal moments instead of hate Micronets' advertising behavior. According to a recent research of KISSmetrics based on the dataset of Facebook, posting 1-2 times per day gets 40% more engagement over posting 3 or more times per day, and posting 1-4 times per week gets 71% more engagement than posting 5 or more times per week (Roberto A. Ferdman, 2015). On the other way, the Micronets' behavior may not be natural. They may learn from the past data that timing of post is important. They tend to advertise their products on Thursday and Friday when the engagement rates are 18% higher while sacrifice the timing of moments of their personal lives. In conclusion, different timing of their normal posts before and after they become Micronets also results in different engagement rate. Also, the moments' function named "share to" also may make the data had to analyze. For those Micronets who only share their normal moments with several people, the engagement rate may not change too much.

Feasibility Assessment

Convince WeChat company to work with me might be the biggest impede for it already has its own Tencent Big Data research group. However, this study of mine is of great interests and importance. Selling goods and service through moments are problematic, for those Micronets are not registered and no one can guarantee the safeness and quality of their products. Tencent may use the results to manage and rule Micronets' behaviors and push them to register. Thus may prove their surveillance over those Micronets.

Although those data may incur identification problem- the probability is low for the database is too large and people don't use their official name on it, I can easily remove the account names and the content of comments from the published part of data to follow the IRB. Although it may still violate the rule of respect for person for it use the data of user's behavior without their consent and awareness. However, considering it won't hurt the beneficences of the users, and the users actually acquiesce the tracking behavior of WeChat when they decide to use this App. Thus, it's not a big deal.